

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-6. (Canceled)

7. (Currently amended) A method of fabricating a cartilage implant comprising:
embedding chondrocytes or mesenchymal stem cells in a three-dimensional substrate, the
substrate containing randomly rewound α -helical monomers from partially digested type I
collagen; and

growing the chondrocytes or mesenchymal stem cells in the substrate, thereby producing
a cartilage implant;

wherein the substrate further contains randomly rewound α -helical monomers from partially
digested type II ~~collage~~ collagen, and during the growing step, the chondrocytes or
mesenchymal stem cells and the substrate are placed in a rotating and oscillating vessel.

8-9. (Canceled)

10. (Previously presented) A method of fabricating a cartilage implant comprising:
embedding chondrocytes or mesenchymal stem cells in a three-dimensional substrate, the
substrate containing randomly rewound α -helical monomers from partially digested type I
collagen; and

growing the chondrocytes or mesenchymal stem cells in the substrate, thereby producing
a cartilage implant;

wherein, during the growing step, the chondrocytes or mesenchymal stem cells and the
substrate are placed in a rotating and oscillating vessel.

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11-24. (Canceled)